Key points

- Studies show that approximately 40 percent of children who are deaf or hard of hearing (DHH) have an additional disability.
- Approximately nine percent report two or more additional disabilities.
- Each additional disability requires specific attention in educational settings additional to the hearing loss.
- The additional disability to hearing loss may have a greater influence on the student than their hearing loss.
- Teachers need an understanding of various disabilities and strategies to help students with multiple challenges.
- Experts recommend a robust team approach to ensure best educational outcomes.

Definition and prevalence of additional disabilities in people who are DHH

Gallaudet University defines an additional disability as “any physical, mental, emotional or behavioral disorder that significantly adds to the complexity of educating” a child who is DHH (Gentile & McCarthy, 1973). These difficulties may include language and communication difficulties, a cognitive or learning delay, visual impairment, global developmental delay, medical conditions, and emotional or behavioral challenges.

Approximately 40 percent of people who are DHH have at least one additional disability (Fortnum & Davis 1997; Gallaudet Research Institute, 2003). Approximately nine percent have more than one additional disability (Schildroth & Hotto, 1996). The prevalence of this population is higher in non-Western countries and also in certain Asian and Hispanic populations within Western countries (Picard, 2004). The comparative lack of vaccines both for children and women of childbearing age in non-Western countries partially explains this prevalence. For example, vaccines for American children have decreased the incidences of mumps, measles, and meningitis, which can cause deafness in children (Picard, 2004). Maternal rubella, another cause of childhood deafness, is also rare. (Picard 2004).

Additional disabilities can be congenital or acquired after birth. Research suggests that approximately one-third of children with hereditary deafness have additional disabilities (Bruce, Dinatale & Ford, 2008). Hearing loss is linked with numerous syndromes that cause additional disabilities. Toriello et al.’s (2004) Hereditary Hearing Loss and Its Syndromes is a detailed resource that describes 400 syndromes that may coincide with hearing loss (Flexer & Madell, 2014).

Services

Given many children who are DHH have additional disabilities, it is paramount that their teachers understand the additional challenges and receive the best training to meet their students’ needs. Luckner and Carter (2001) cited several challenges to providing the best educational program for learners who are DHH with additional disabilities: (a) a lack of appropriate assessments; (b) a shortage of curriculum materials and methods; and (c) a shortage of well-prepared educators.
The table below shows the breakdown of the most common additional disabilities for people who are DHH.

<table>
<thead>
<tr>
<th>Condition</th>
<th>%age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Disabled</td>
<td>10.2</td>
</tr>
<tr>
<td>Cognitively Disabled (MR)</td>
<td>9.3</td>
</tr>
<tr>
<td>Attention Deficit Disorder</td>
<td>6.6</td>
</tr>
<tr>
<td>Cerebral Palsy</td>
<td>3.3</td>
</tr>
<tr>
<td>Low Vision</td>
<td>2.8</td>
</tr>
<tr>
<td>Emotional Disorder</td>
<td>1.8</td>
</tr>
<tr>
<td>Legally Blind</td>
<td>1.6</td>
</tr>
<tr>
<td>Other</td>
<td>12.7</td>
</tr>
</tbody>
</table>

Sourced from Gallaudet Research Institute (2003)

A multi-disciplinary team helps to provide a comprehensive service to children who are DHH that have additional disabilities (Goldberg and Perigoe, 2010). Goldberg and Perigoe also discuss the essential role each professional below plays:

- Paediatrician
- ENT/Otolaryngologist
- Psychologist
- Early Intervention Specialist
- Special Educator
- Audiologist
- Speech-Language Pathologist
- Teacher of the Deaf
- Auditory-Verbal Therapist
- Physical Therapists
- Occupational Therapist
- Behavioural Specialist
- Vision Specialist
- Classroom Teacher
- Classroom Aide

The child’s parent is this multidisciplinary team’s most important member. Their role may involve varying degrees of participation. Regardless, one person is the team’s designated manager and facilitates communication within the team.

Educational strategies

Jenkins and Noss (2011) detail a variety of additional disabilities. They also provide specific assessments and strategies for working with each set of needs. Children who are DHH that also have learning disabilities tend to require multi-modal instruction with specific attention to memory strategies. Perioge emphasises that goals must be individualized for each child who is DHH and has a learning disability or Attention Deficit Hyperactivity Disorder (Goldberg & Perigoe, 2010).
She also states that lessons must have a goal-driven multisensory approach in which materials are adapted, learning is broken into smaller steps according to the child’s needs, and much repetition is built into the child’s program.

Children who are DHH and have a learning disability may have strengths in audition while others may have visual or kinaesthetic strengths. Some may have a combination of strengths. There is certainly no one solution for all children with hearing loss combined with a learning disability.

Detailing other less prevalent additional disabilities is beyond the scope of this paper. Further information, however, can be found in the references provided.

Conclusion
It has been well documented that children who are DHH that have an additional disability add to the complexity of providing adequate services. Experts agree that a comprehensive team approach is the most important aspect of providing quality services for these students.  
Research has also found that many service providers lack training in meeting the needs of students who are DHH and have additional disabilities.  On-going training from, and liaising with, professionals from other disciplines are essential for establishing quality programs and maintaining best practice services.

While some strategies work for many children who are DHH and have additional disabilities, not one educational program will fit the needs of every child. Each student has unique needs and strengths requiring individualized strategies and techniques.

References